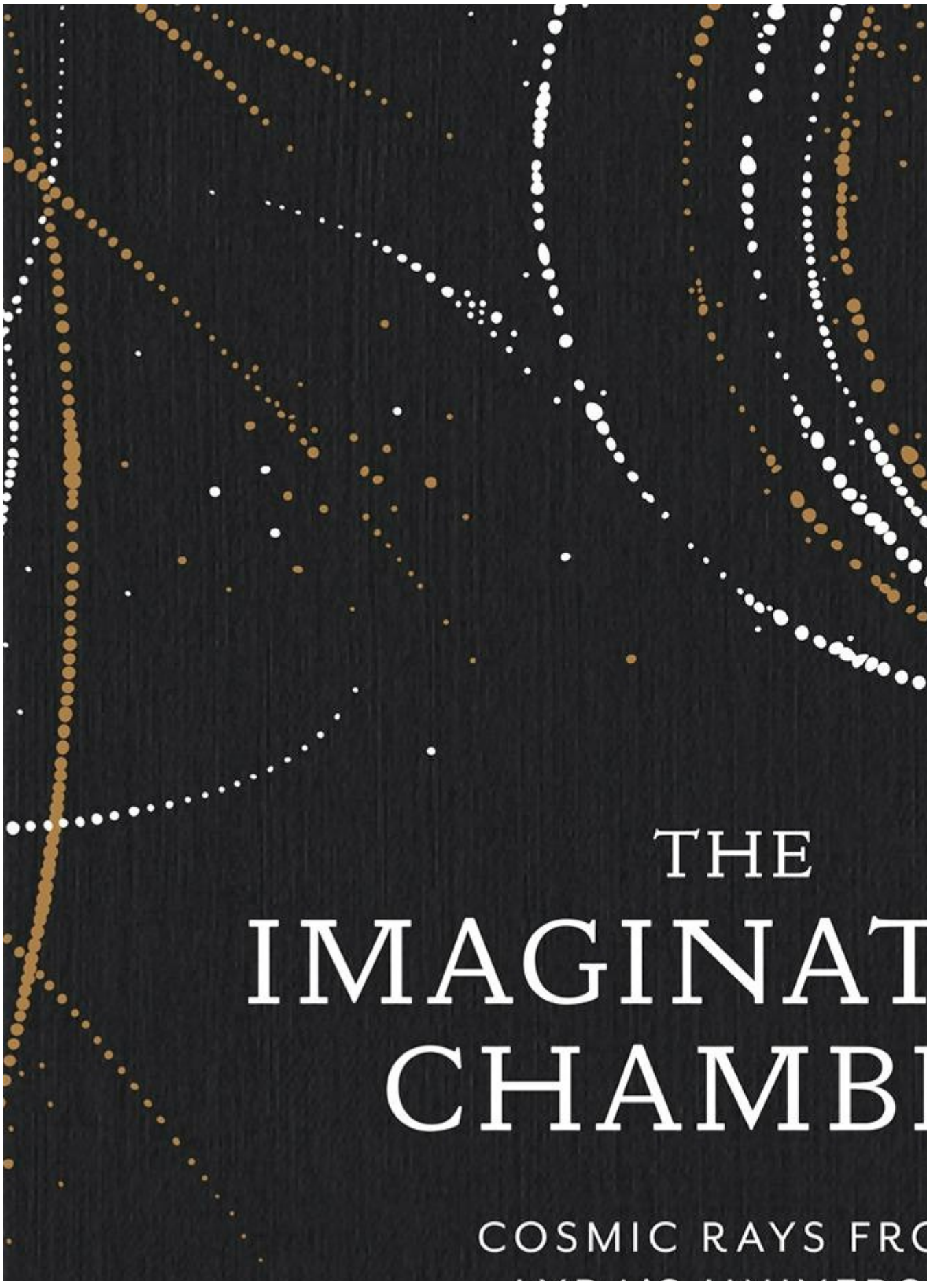
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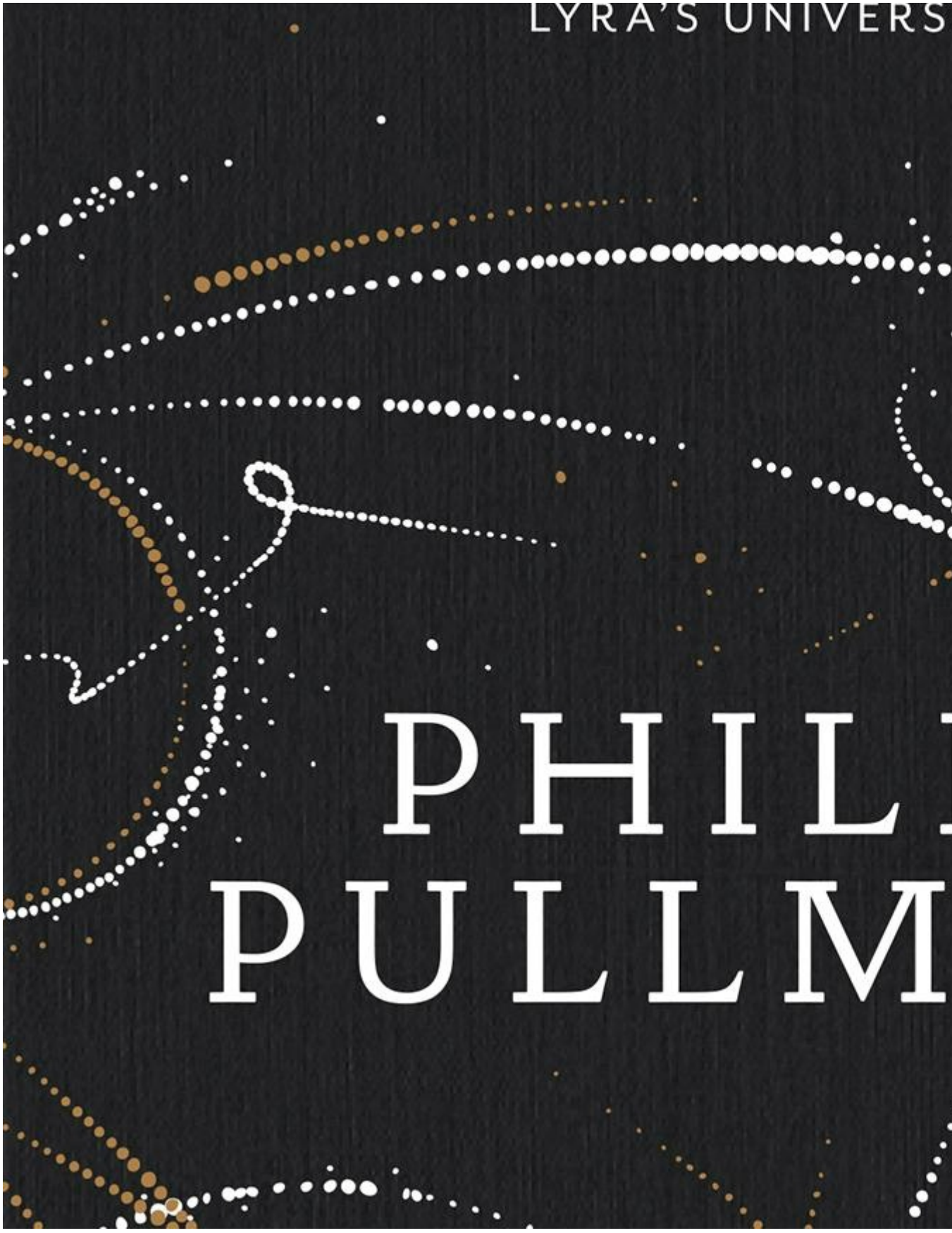
LYRA'S UNIVERS
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THE IMAGINATION CHAMBER

Selected works by Philip Pullman

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Lyra's Oxford
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Serpentine
The Collectors

NON-FICTION
Dæmon Voices: On Stories and Storytelling

THE

IMAGINATION CHAMBER

COSMIC RAYS FROM
LYRA'S UNIVERSE

PHILIP
PULLMAN

To all the teachers who actually taught
me something – prominent among them,
Miss Enid Jones of Ysgol Ardudwy.

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THE IMAGINATION CHAMBER

Many readers will know, and Lyra knows, what is meant by the term cloud chamber. If you can get hold of some dry ice and a few household bits and pieces, you can make one without too much difficulty. It makes visible something we're normally unable to see: the passage of charged particles, or cosmic rays, which cause the saturated vapour in the chamber to condense around them and leave little trails of light. Millions, billions, of particles like those pass through us every day, and we have no idea it's happening.

They seem to me very much like ideas. When I write a story, it feels as if I don't make things up so much as discover them. By long practice, or habit, or luck, or something, my mind has become accustomed to working like a cloud chamber, in which minute particles charged with story can find something to condense around them and make them visible for a fleeting moment. I think something like this happens to all of us when we daydream. This is a metaphor, of course, like the Dust that occupies the attention of many characters in Lyra's world. Some metaphors, though, are good tools for thinking with, and I found that this one was a fruitful way of describing various short pieces I had written some time ago, and others I've written since: little trails of vapour condensing around a particle charged with story. When I first wrote them I called them "lantern slides", because of their nature as little separate pictures from a bigger story, but I think the metaphor of charged particles in a cloud chamber is an even better image.

The question of what these particles are, and where they come from, is what Lyra herself is investigating in the final part of *The Book of Dust*, which I'm writing at the moment. I don't know quite what she'll discover, but you'll hear about it when she does.

As for the saturated vapour in the cloud chamber, without which the particles wouldn't become visible at all, there's only one thing that could be, and I share it with every reader: it's the imagination. Here are some cosmic rays from the imagination chamber.

Philip Pullman

MRS COULTER in the cave, watching Will, speculating; Will watching her, speculating. Their words like chess pieces, placed with great care, each carrying an invisible nimbus of implication and possibility and threat. Each of them afterwards felt as if they had barely escaped with their life.

DESPITE her natural Jordan College patriotism, Lyra had to admit that there was one department where it failed to shine in comparison with Gabriel, or Durham, or Cardinal's, and that was gardening. The Fellow's Garden at Jordan was a darkish rectangle shadowed for most of the day by the buildings around it, and Mr Harbord, the head gardener, had fixed ideas about what he wanted to flourish there. Flowers of sombre hue and regular habit were approved; those that climbed and wandered were extirpated without mercy. On the other side of Broad Street, however, Durham College, to Lyra's great admiration, actually had a maze to which tourists were admitted for sixpence. There was a plan for sale in the lodge, but that cost a guinea. Lyra and Roger paid their sixpences to go in several times and made a plan of their own, which they intended to copy and sell in large quantities for only five shillings, undercutting the official one and making a fortune; but one glance at it was enough to show the most parsimonious visitor that they'd be better off without it, and besides, the Durham porters took a dim view of the enterprise and chased them away.

ON the beach, the alethiometer suddenly inert in Lyra's hands, as if it had abandoned her.

LYRA hanging about the Castle Mill boatyard. Each gyptian family had their particular patterns for decorating their boats, based on simple floral designs but becoming more and more complex and fanciful. Lyra watching old Piet van Poppel touching up his boat one day and laboriously copying the rose-and-lily pattern he was using, and then back in her room trying to paint it on her second-best dress before realizing that it would be better embroidered. And very soon after, having pricked her fingers countless times and snapped the threads and lost all patience with the task, throwing it away in disgust, and having to explain its absence to Mrs Lonsdale.

A DÆMON is not an animal, of course; a dæmon is a person. A real cat, face to face with a dæmon in cat form, would not be puzzled for a moment. She would see a human being.

J ORDAN COLLEGE, like a great clockwork mechanism with every part connected ultimately to every other, and all slowly and heavily ticking despite the fur of dust on every cog, the curtains of cobweb draped in every corner, the mouse-dirt, the insect-husks, the leaf-skeletons blown in every time the wind was in the east... Rituals and habits whose origins no one could remember, but which no one wanted to disturb. The great wheels and the small, the pins and the levers all performing their functions despite the wheezing and the creaking and the groaning of ancient timber. Sometimes the individual parts (a servant or a Scholar) forgot precisely what their function was in relation to the whole, but never that the whole had a function; and it was enough to do again what you had done yesterday, and every day before that, and trust to custom.

LEE SCORESBY, attracted north by the money being made in the gold rush and making none, but acquiring a balloon by chance in a card game. He was the lover of a witch from the Karelia region, briefly, but she was killed in battle – “She spoiled me for women younger’n three hundred” – but he had plenty of lovers all the same.

MALCOLM'S spangled ring, the scotoma, hardly ever signalled an approaching headache. It appeared, and grew larger, and after twenty minutes or so it drifted beyond the edge of his frame of vision, leaving him feeling strange and disconnected from the world, as if he was coming out of a dream. Then that feeling subsided too and he was back to normal.

Only twice was the spangled ring followed by the head-splitting pain and nausea of a fully developed migraine. After it was over he felt scoured by a great force of nature, washed clean and emptied, weakened, but mystified; as if a tide from an unknown sea, imperceptible to anyone but him, had risen around him and all but swept him away, only to recede leaving a shore strewn with broken planks, torn nets with never-before-discovered creatures tangled in them, shells and jewels and corals and fragments of unimaginably ancient machinery.

He couldn't tell whether this was evidence of another world, or an example of the incomparable richness of this one.

ASRIEL among the bears: “Iofur Raknison, I’m going to be entirely frank with you,” followed by a string of confident and overbearing lies – had he noticed the bear king’s doll-dæmon, the clue that he was unbearlike enough to be tricked? Or was it just luck? – but he knew the bears well enough. He was very like his daughter.

MRS COULTER selected her lovers for their power and influence, but it did no harm if they were good-looking. Did she ever become fond of a lover? Not once. She could not keep her servants, either.

MR TAPHOUSE said one day as he ran his hand over a freshly-planed length of oak: “Feel that, boy, feel how old that is.” Malcolm tried, but all he could actually feel was the glassy smoothness of the bare surface. So he imagined it: acorn, sapling, mature tree, a mighty canopy in the summer and a gaunt skeleton in winter. From then on whenever Malcolm had a piece of oak in his hands, or walnut, or even simple honest pine, he liked to think of the tree it had been. He liked to feel the immense age of it, visible in the growth rings, and the past of it, and the future too, as he thought of the acorns and walnuts and pine cones. He imagined it. He pretended he could see it. From somewhere he remembered the expression “the mind’s eye”. He imagined it, and thus he came to see it, every time, until it became second nature.

“I’m your second nature,” said Asta.

“That’s all right,” he said, “it’s probably you doing it too.”

“Bound to be,” she said.

LYRA had a crush on Dick Orchard, the older boy who could spit further than anyone else. She would hang about the Covered Market gazing at him hopelessly, and cover her pillow with clumsy kisses, just to see what it felt like.

EDWARD LONSDALE, who married Alice, had the sweetest nature and the smoothest skin she had ever encountered in anyone, man or woman. The words that kept coming back to her as she lay beside him on their first night together were beautiful, lovely, exquisite, angel. She knew what a cliché was, and didn't care; her luck in loving him was more important than fine language. She wasn't pretty herself, and she could never quite believe that he loved her, though he swore he did, by the moon and stars. She felt her entire nature being transformed by his generosity in accepting the adoration she felt for him. And such a short time later, a scaffolding clamp gave way and he fell to his death from St Giles's church tower. The old Alice would have been bitter and savage, her passion turned to venom; this new Alice, lost, almost broken, almost helpless, found that she also loved the little child she and Malcolm had taken through the flood. The kisses she bestowed on the sleeping Lyra were kisses of gratitude too.

EVERY year the Domestic Bursar at Jordan would send for Lyra – or have her tracked down and caught – and have a photogram taken. Lyra submitted indifferently, and scowled at the camera; it was just one of the things that happened. It didn't occur to her to ask where the pictures went. As a matter of fact they all went to Lord Asriel, but he would never have let her know.

BENNY the pastry cook at Jordan, whose dæmon was male, sitting in the warm cabin with his cousins the Costa family and listening to the story of how Lyra hijacked their boat, and their demand that someone discipline the brat. Their indignation was too much to bear without laughing. In return he told them about how she rescued a starling from the kitchen cat, only for it to die anyway, and of how she plucked and gutted it clumsily and smuggled it into the great ovens, hoping to retrieve it when it was cooked. But the chef sent her packing, and in the bustle the starling was sent to table with the rest of the feast, and was eaten with relish by the Master. The truth came out when the doctor had to be summoned to deal with the poor man's suffering. Lyra was unrepentant.

"It wasn't for him," she said. "He's obviously got a delicate stomach. I could have eaten it." She was banned from the kitchens for a term.

"Seems to me we got off lightly," said Tony Costa.

SERAFINA PEKKALA on her cloud-pine would find a still field of air at night and listen to the silence. Like the air itself, which was never quite still, the silence was full of little currents and turbulence, of patches of density and pockets of attenuation, all shot through with darts and drifts of whispering that were made of silence themselves. It was as different from the silence of a closed room as fresh spring water is from stale. Later, Serafina realized that she was listening to Dust.

JOHN PARRY and the turquoise ring: how did he get hold of it? You could tell a story about the ring, and everything that had happened to it since it left Lee Scoresby's mother's finger; and you could tell a story about Lee himself, and recount his entire history from boyhood to the moment he sat beside the little hut on the flooded banks of the Yenisei, and saw the shaman's fist open to disclose the well-loved thing that he'd turned and turned round and round his mother's finger so long ago. The storylines diverge, and move a very long way apart, and come together, and something happens when they touch. That something would lead Lee to his death, but what happened to the ring? It must still be around, somewhere.

ALL the time in Cittàgazze, the sense of how different a place this could have been if it hadn't been corrupted; how easy it would have been not to make the knife, if they'd seen the consequences. A world of teeming plenty, of beautiful seas and temperate weather, of prosperity and peace – and still they wanted more.

WILL and his mother, visiting an elderly-seeming couple in a large house, and getting a cold welcome. He was puzzled: he was too young to understand the conversation, the murmuring voices, his mother's tears. Later, all he remembered was the contempt on the older woman's face, the feeling that these two regarded his beloved mother as dirt, and his savage resolution never to let her be exposed to that brutality again. He was six. He would have killed them if he could. Very much later, he realized they were his father's parents.

LYRA lying awake on the cold rocks, pretending to be asleep, while Will whispered to her dæmon. How often did she think of that in the days that followed!

THE window in Alaska. Natural that the people of the area, if they knew about it at all, would regard it as a doorway to the spirit world; and natural that the other windows into our world should be hard to find, and often neglected. People don't like the uncanny, and rather than look fully at something disturbing, they'll avoid it altogether. That house that no one seems to live in for long, that corner of a field that the farmer never quite manages to plough, that broken wall that's always going to be repaired, but never is… There is such a place on Cader Idris in north Wales, and another in a hotel bedroom in Glasgow.

MARY had thought the mulefa had no history, but that was because the history she'd been taught in school was about politics, the clash of nation states, the rise and fall of empires. In her time among the mulefa she learned about a different kind of history. They had forgotten nothing they'd ever known, and such things as the story of the great storm of fifteen thousand years before, or the discovery of the cord-fibre plant, or the week-long ride of the one survivor of the south shore earthquake nursing his broken wheel as he had to cross country to keep out of the floods, were all the subject of lengthy and complex recital, embroidered and counterpointed by the teller and the listeners jointly. Mary was not with them for long enough to discover whether they had any concept of fiction – or whether, indeed, those tales were remembered or invented.

SIR CHARLES LATROM every morning applying two drops of a floral oil to the centre of a large silk handkerchief, which he then bundled and tucked as it were carelessly into his top pocket. He couldn't have named the oil: he'd stolen it from a bazaar in Damascus, but the Damascus of another world where the flowers were bred for the flesh-like exuberance of their scent. As it developed through the day, the fragrance of the oil rotted like a medlar; Sir Charles would lean his head to the left and sniff appreciatively, perhaps too frankly for the comfort of most companions.

CITTÀGAZZE under the moonlight, deserted and silent and open: the colonnades drenched in soft shadow, the Casino gardens so perfectly clipped and swept, the gravel paths… Every house lit, every door open to the warm night. It was the first place where Will had ever felt entirely safe and entirely welcome and entirely at home. Lonely, yes, at first, but he lived in that condition like a fish in water. He would never know how inconceivably strange he appeared, at first, to Lyra.

KENDAL MINT CAKE, and the delicate, fastidious curiosity of Balthamos as he nibbled the edge of it. For the rest of his life, the taste of sugared peppermint brought that picture back to Will's mind, and he was there again beside the smoky little fire with the stream splashing in the darkness nearby.

WHEN Lyra was very young, she sometimes asked about her mother. She was a great lady, they told her, beautiful and kind and gracious. She was Dutch, someone said, but someone else told her that of course she was English. She had died when Lyra was a little baby, in a mountain-climbing accident together with her husband, Lyra's father, Lord Belacqua. No; it was when their yacht went down in a hurricane. No; they had both died in the great epidemic when Lyra was two.

There were no pictures of either of them, but in the Buttery there was an engraving of a bearded man planting a flag at the top of a snowy mountain, which she had decided was a portrait of her father; and in the Ashmolean Museum a painting of a very pretty young woman in a white ballgown with a necklace of sapphires, whom Lyra had adopted as her mother.

A beautiful blue cat-dæmon was gazing up at her. When Lyra was nine or ten she went there on her own, often, and sat in front of the picture, whispering to her.

But Pantalaimon preferred Alice's dæmon, Ben the big patient mongrel dog, because he was kind.

IN Lyra's world dæmons, in the world of the mulefa the oil-bearing wheels – both ways of making the workings of Dust apparent. In our world, what?

AGAIN, Will, later: the sense his hand and mind had learned together as the point of the knife searched among the tiniest particles of the air, the sense of feeling without touching, of knowing without spoiling, of apprehending without calculating. He never lost it. When he was a medical student, he had to pretend to make a wrong diagnosis occasionally: his success was in danger of looking supernatural. Once he was qualified, it became safe to go straight to the right answer. And then began the lifelong process of learning to explain it.

THERE should be, and probably is, a name for the scraps of paper found marking some lost reader's place in a book, or blowing along the gutter, or in the bottom of an old shopping bag. They might bear half a paragraph from a newspaper article, or the scribbled name and phone number of someone we don't remember, or a circled figure in a column of numbers.

The storyteller's instinct is always to elaborate around such a scrap, to watch a story growing out in every direction like frost on a window-pane, with the little scrap of paper and its enigmatic information always the point from which the story develops in the storyteller's mind. It might never be mentioned in the story itself – it might be forgotten entirely – or it might turn out to be the vital evidence in a murder trial. You could expand it logically, if you had to, or you could sink into a state of hypnagogia and let it develop by itself. If you did it well, no one would be able to tell afterwards which way you did it.

MARY, absorbed and happy as she fooled around with the lacquer to make her spyglass; fooling around was something she'd never been able to explain to her colleague Oliver Payne, who needed to know where he was going before he got there. Back in Oxford, she gave three of her precious wheel-tree seeds to a scientist at the Botanic Garden, a nice man who understood the importance of fooling around. The seedlings are growing well, but she refuses to tell him where they came from.

AN infinity of silvery greens and gold-sand-browns, the whispering of grass in the warm wind. Safety, sunlight.

LYRA at eighteen sitting intent and absorbed in Duke Humfrey's Library with the alethiometer and a pile of leather-bound books. Pushing the hair away from her eyes, pencil in mouth, finger moving down a list of symbols, Pantalaimon holding the stiff old pages open for her… "Look, Pan, there's a pattern there – see? That's why they're in that sequence!" And it felt as if the sun had come out. It was the second thing she said to Will next day in the Botanic Garden.

ON board *The Maid of Portugal* with Giorgio Brabandt, Lyra often noticed the care the old man took with his tools. Every knife, every spanner, every screwdriver had its place, and the knives were sharp enough to shave with, he often told her. His hands were filthy, with grease under his nails and dirt in the lines of his fingerprints, and he changed his clothes when he no longer enjoyed the smell of them; but his spanners, his chisels, his silver spoons (he was fastidious about his cutlery, and used only silver), his feeler gauges and the little bone-handled fruit knife he peeled apples with were as brilliantly glittering as when they left the tool-maker's bench.

THE library at Jordan College was no bigger than a hundredth of the size of Bodley's, the great library that served the whole university, and whose buildings lay just outside the walls of Jordan. The college library was entered through a modest doorway in the Fellow's garden, and had two storeys of reading rooms above ground and several levels of stacks below. Lyra at the age of eleven was convinced that there were secret tunnels that connected it with the most private sections of Bodley's, and led all through Oxford and for many miles beyond, to caverns where Scholars and eminent people from the great world held dinners and performed unmentionable rites. She had no idea what a rite was; it was the word unmentionable that excited her.

WHEN Lyra, very young, couldn't sleep, Mrs Lonsdale would sit on her bed with the night light glowing gently and sing nursery rhymes. The housekeeper was quite different at night. Her daytime sharpness was all smoothed away; instead of hard elbows she had a soft breast; her voice was sweet and low, and her repertoire was endless.

MR TAPHOUSE the Priory handyman, a great hero of Malcolm's, had a clear view about anbaric-powered tools. "Them old craftsmen," he said, "like the ones who made the great chest in Sister Benedicta's office – if they'd had power drills and sanders and the like, they'd have used 'em in a trice, and blessed the Lord for 'em. There's some kinds of work that's a pleasure to the hand, and other kinds that's drudgery. Learn to tell the difference, Malcolm boy, and don't be a snob about any good tool."

NOTHING, not even the ocean, not even the stars on a clear night, gave Lyra such a profound sense of endlessness as the steppes of Central Asia. Grass, and grass for ever, and grass that became in the far distance a vapour of sand-brown and water-green and air-blue. She didn't realize there was anything missing until she remembered the long lacing roads of black basalt, the friendly thunder of seed-pod wheels.

THE smell of the mash Sister Fenella mixed up every afternoon for the chickens... Malcolm loved it, and wondered if it tasted as good as it smelled. The old wooden troughs, one under each arm, in which she carried it out... Just rough things knocked together out of pine, the edges worn away, deep earth-brown, rich with the scent of good mash... Everything fitted together, Malcolm thought.

WILL as a physician wondering about synaesthesia and neural pathways. If someone (for instance) saw numbers in colour, it was because of an accidental connection between neurons, and in itself meaningless. But we can learn to see and hear things deliberately, by training our senses and our memories. A piano tuner learns to hear the beats that tell when two strings are not perfectly in tune, and in learning it, establishes a new connection in the brain; and when Will was a boy there had been a vogue for Magic Eye pictures, where you could learn to see a 3D image in a printed picture. You only had to learn to do it once, and next time it became easier: a new neural connection had been set up, so that things really there, but not noticed before, became clear and apparent. All we had to do was learn how to perceive them.

Could we follow that example, Will thought, and train ourselves to see other people's dæmons?

IN Lyra's world people got used to knowing that their dæmons talked to other people's dæmons, and could perceive dislike, coldness, attraction, sympathy, etc, without their people saying a word, or while they were talking of something entirely different. Later their people might realize that (for example) they had made a lifelong enemy, or that they'd fallen in love.

ONE day a visitor arrived in college to be met with ceremony and deference: a great writer, Lyra was told, who had received a magnificent prize from the King of Spain. There was a garden party in his honour to which Lyra was invited, a dinner of great splendour to which she was not, and in between, the great man was to give a lecture on the metamorphosis of the folktale, which she could go to or not, as she pleased. She ate too many cakes and strawberries at the garden party and felt ill throughout the lecture, which was disappointing anyway because it was all metamorphosis and no tale. She crept out halfway through to be sick in the corridor, but she pulled back the carpet first and replaced it afterwards so that no one would notice.

ONE of the signs of good sense in someone is when they don't pester their dæmon to tell them everything. When they're happy to know that their dæmon has secrets, too.

FARDER CORAM, in his old age: words like ill-trained dogs become indifferent and disobedient – you call them, you whistle and try to remember their names – no success. In a field where you once had complete command you stand mouthing silence, the dogs out of sight doing something else, the sheep grazing blandly, the grass noticing nothing. Everything continues nevertheless.

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